Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

84 F
no. 1308

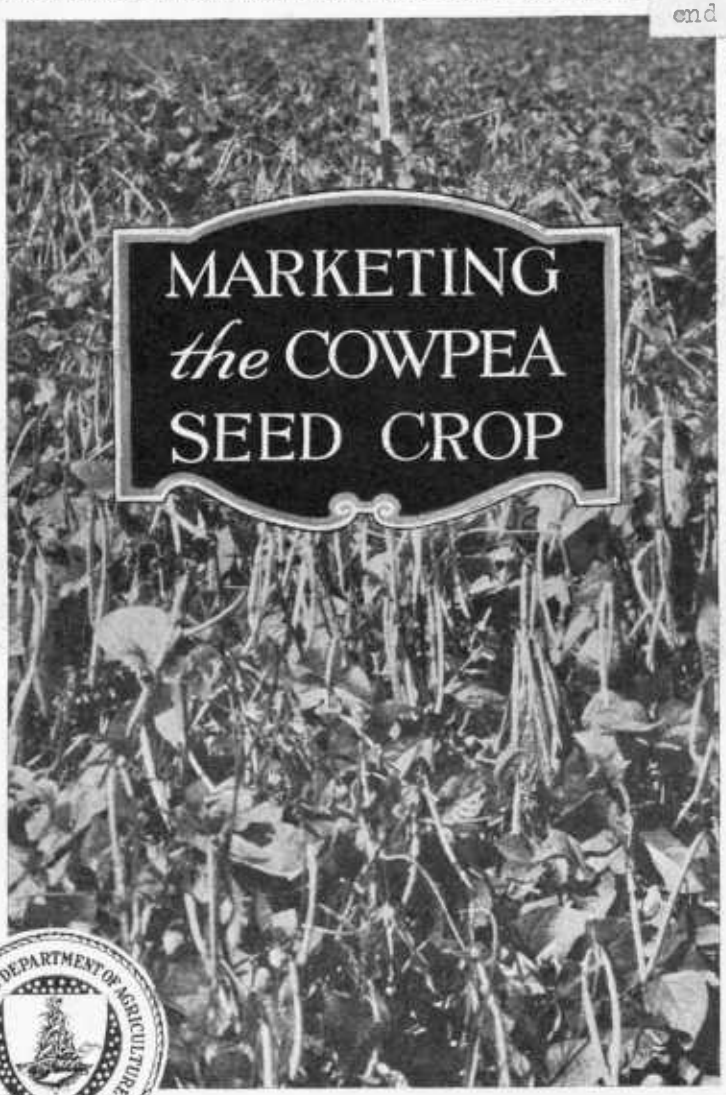
FEB - 1923

U. S. DEPARTMENT OF AGRICULTURE

FARMERS' BULLETIN No. 1308

Has been rev.
--see rev.ed.
binders at
end of file.

MARKETING *the* COWPEA SEED CROP



MARKETING THE COWPEA SEED CROP.

By J. E. BARR, *Investigator in Marketing Seeds, Bureau of Agricultural Economics.*

CONTENTS.

VALUE OF THE CROP.

The annual farm value of cowpeas [1] produced in the United States during recent years averages over $18,000,000. On most farms, however, the cowpea is grown largely as a catch crop, is considered of secondary importance as a money crop, and in many instances is handled in an unbusinesslike manner. This results not only in a direct monetary loss to the grower, but may mean a more serious economic loss to the farmers desiring to purchase cowpea seed.

The cowpea is of major economic importance in the crop rotation, especially in the Cotton Belt, but it is an uncertain producer of seed, and in some years there is an apparent shortage of stocks for planting purposes. Investigations show that almost invariably a lack of cowpea seed in any section may be attributed to inefficient farm preparation for market and inequitable distribution of existing stocks rather than to insufficient production. This bulletin points out some of the methods by which growers may conserve their surplus production of cowpeas, prepare them for market, and sell them in such a way as to return a greater net profit for themselves and to provide an adequate supply of good-quality stocks for farmers who find it necessary to buy.

THE COMMERCIAL SUPPLY.

It has been estimated that normally 250,000,000 to 300,000,000 pounds of cowpeas are required for planting annually. An extensive inquiry made by the Federal Bureau of Markets, the results of which were published in the Seed Reporter,[2] indicated that of this quantity approximately 30 per cent, or 75,000,000 to 90,000,000 pounds, is obtained by farmers from various dealers; 15 per cent, or 37,500,000 to 45,000,000 pounds, is obtained direct from growers; and 55 per cent, or 137,500,000 to 165,000,000 pounds, is produced on the farms where used.

[1] The term "cowpeas" as used in this discussion does not include "blackeye cowpeas or beans" grown in California.

[2] See Seed Reporter, vol. 3, No. 4, Oct. 11, 1919.

Issued, January, 1923.

15134°—23——1

Considering that portion of the requirements which is obtained by farmers direct from growers, as well as that bought from dealers, as commercial seed, the total annual commercial supply averages 125,000,000 pounds. This represents the production from about 125,000 farms, based on the information given in Table 1, which shows the average production of cowpeas per farm in the United States to be only 1,010 pounds.

TABLE 1.—*Average production of cowpeas per farm by States.*[1]

State.	Production per farm.	State.	Production per farm.
	Pounds.		*Pounds.*
Alabama	900	Mississippi	865
Arkansas	760	Missouri	1,560
Delaware	2,200	North Carolina	750
Florida	1,620	Oklahoma	1,130
Georgia	1,065	South Carolina	1,060
Illinois	2,170	Tennessee	755
Indiana	1,840	Texas	1,550
Kentucky	1,200	Virginia	1,150
Louisiana	1,045	United States, average	1,010
Maryland	1,870		

[1] These figures are computed from the agricultural reports of the Bureau of the Census. There is no consistent ratio between the production per farm and the total production by States. The States showing the lowest production per farm in most instances show the largest total production because of the greater number of farms producing this commodity. These figures are published by the Bureau of the Census for "dry peas," which includes "cowpeas." For the States given in the table the amount is made up almost wholly of "cowpeas."

These figures serve to indicate the difficulty of assembling large shipments, the average surplus of 30 farms being required to make a minimum carload. The small lots available on each farm must be either concentrated for carload shipment to consuming territory for redistribution or sold and shipped or delivered in small quantities direct to other farmers.

SURPLUS PRODUCING AREAS.

Most of the commercial supply of cowpeas is produced in Alabama, Georgia, South Carolina, North Carolina, and Mississippi. Other States that produce fairly large quantities but usually not enough to meet their own planting requirements are Florida, Virginia, Tennessee, Louisiana, Texas, Oklahoma, Arkansas, Missouri, Illinois, Indiana, Ohio, and Kentucky. The relative importance of the various producing areas in 1919 is illustrated in Figure 1.

Production varies in any producing area from year to year, largely because of unfavorable weather conditions, or a large acreage may be planted for seed production and there may be a shortage of labor. If heavy demands are made upon the labor supply for handling the staple crops the cowpea seed crop may remain unharvested or may be grazed by live stock. Even after a crop is harvested the prevailing prices may not be attractive to farmers and they may consider it more profitable to use their cowpeas on the farm. Hence a large acreage or a heavy production of cowpeas does not necessarily mean that an increased quantity will enter commercial channels.

VARIETIES AVAILABLE.

The leading commercial varieties of cowpeas are Whippoorwill or "Whips," Clay, Brabham, Iron, New Era, and "mixed." Each of these varieties or classes possesses a different degree of adaptability for planting in sections of varying latitude and climatic conditions and each has a distinct commercial value. Surplus quantities of some of these varieties are produced in more or less restricted areas. In order to ascertain what percentage of the total quantity of cowpeas shipped from the surplus producing areas in each State is represented normally by each variety, an extensive inquiry was made among

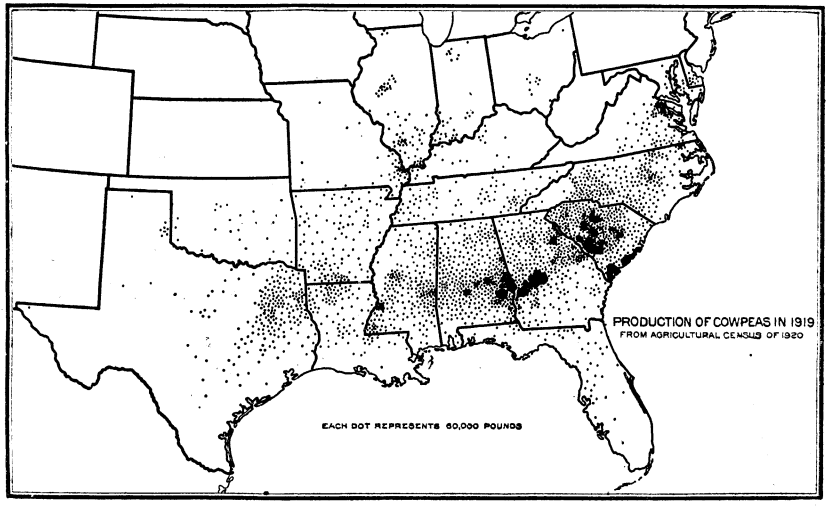


FIG. 1.—Map showing the relative importance of various producing areas of cowpeas.

shippers of this commodity in 1919. The results, published in the Seed Reporter for April 5, 1919, are shown in Table 2.

TABLE 2.—*Shipments of cowpeas from surplus producing areas by varieties, expressed in percentage of total shipments.*

State.	Variety or class.							
	Black-eye and White.	Whip-poor-will.	Clay.	New Era.	Iron.	Brab-ham.	Mixed.	All other varie-ties
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
Alabama	10	38	18	4	(1)	(1)	28	2
Arkansas	1	94	1	.....	.....	.....	3	1
Delaware	6	13	25	18	.....	.....	38	.....
Florida	1	13	3	.....	27	52	4	.....
Georgia	3	24	10	(1)	16	23	22	2
Illinois	.....	49	.....	27	.....	.....	23	1
Indiana	.....	85	4	4	.....	.....	7	.....
Kentucky	11	80	2	2	.....	.....	5	.....
Louisiana	1	33	21	1	.....	.....	44	.....
Maryland	.....	60	.....	20	.....	.....	20	.....
Mississippi	2	48	24	3	.....	.....	23	.....
Missouri	1	38	1	45	.....	.....	15	.....
North Carolina	11	25	14	2	.....	.....	44	4
Oklahoma	23	48	8	15	.....	.....	6	.....
South Carolina	4	20	20	1	2	2	47	4
Tennessee	5	58	14	4	.....	.....	18	1
Texas	15	78	2	3	.....	.....	2	.....
Virginia	15	25	6	3	.....	.....	35	16
Average for above States	5	42	14	4	3	5	25	2

[1] Less than 1 per cent.

FARM PREPARATION TO INCREASE VALUE.

The loss to farmers through the improper handling and preparation of cowpeas is difficult to estimate. The wide margin between the average price received by growers and that paid by consuming farmers, however, indicates somewhat the possibilities of adding to the farm value. This margin between buying and selling prices represents, in the main, services performed, many of which can be rendered more economically by the growers on the farm. Any effort on the part of growers to improve the quality of their cowpeas increases the probable price to themselves. As long as growers place cowpeas on the market that are mixed, poorly thrashed, weevil eaten, and sacked in second-hand bags, and as long as farmers are willing to buy and plant such cowpeas, there will be opportunities in trade channels for sharp practices and unjustifiable profits. On the other hand, if there is a concerted endeavor on the part of cowpea growers to produce and market a better product for seed, and if there is a full realization on the part of farmers generally of the agricultural advantages of planting higher-grade seed, cowpeas will attain their proper place in the farmer's list of money crops.

THRASHING.

Although some farmers harvest and thrash their cowpeas by machinery, most of this crop is still picked by hand and either flailed out by hand or hulled on a small, inexpensive pea and bean huller. This condition is another result of the secondary importance of the crop and the small production per farm. On most farms where cowpeas are produced there is no demand for harvesting and thrashing machinery that could be used both for cowpeas and for other crops, and, with few exceptions, it would not be economical for growers to purchase the necessary machinery of this type for cowpeas alone.

Types of machinery and methods used in harvesting and thrashing large fields of cowpeas for seed have been discussed in a previous publication of the Department of Agriculture.[3]

For hulling or thrashing cowpeas that have been picked by hand a small pea huller may be purchased at relatively low cost which does much more effective work than is done by flailing. Such a machine is operated by hand or power. A uniform speed of both the cylinder and fan shaft is desirable and can be maintained more satisfactorily when power is used. The pods should be thoroughly dry before attempt is made to hull them. Best results are obtained when thrashing is done on a sunny day following three or more days of fair weather, because the hulls tend to absorb moisture during periods of cloudy and rainy weather, even though they may be stored in a dry place, and are difficult to break open. Cowpeas hulled or thrashed properly on a machine of this kind contain less foreign matter than when flailed out by hand. They are subjected to screen and air-blast separations which remove most of the hulls, chaff, dirt, and broken and very light-weight seeds. Types of hullers in this class, and which are believed to be the most economical for the average cowpea grower, are illustrated in Figure 2.

[3] Morse, W. J.: Cowpeas: Utilization. U. S. Department of Agriculture, Farmers' Bulletin No. 1153, 1920.

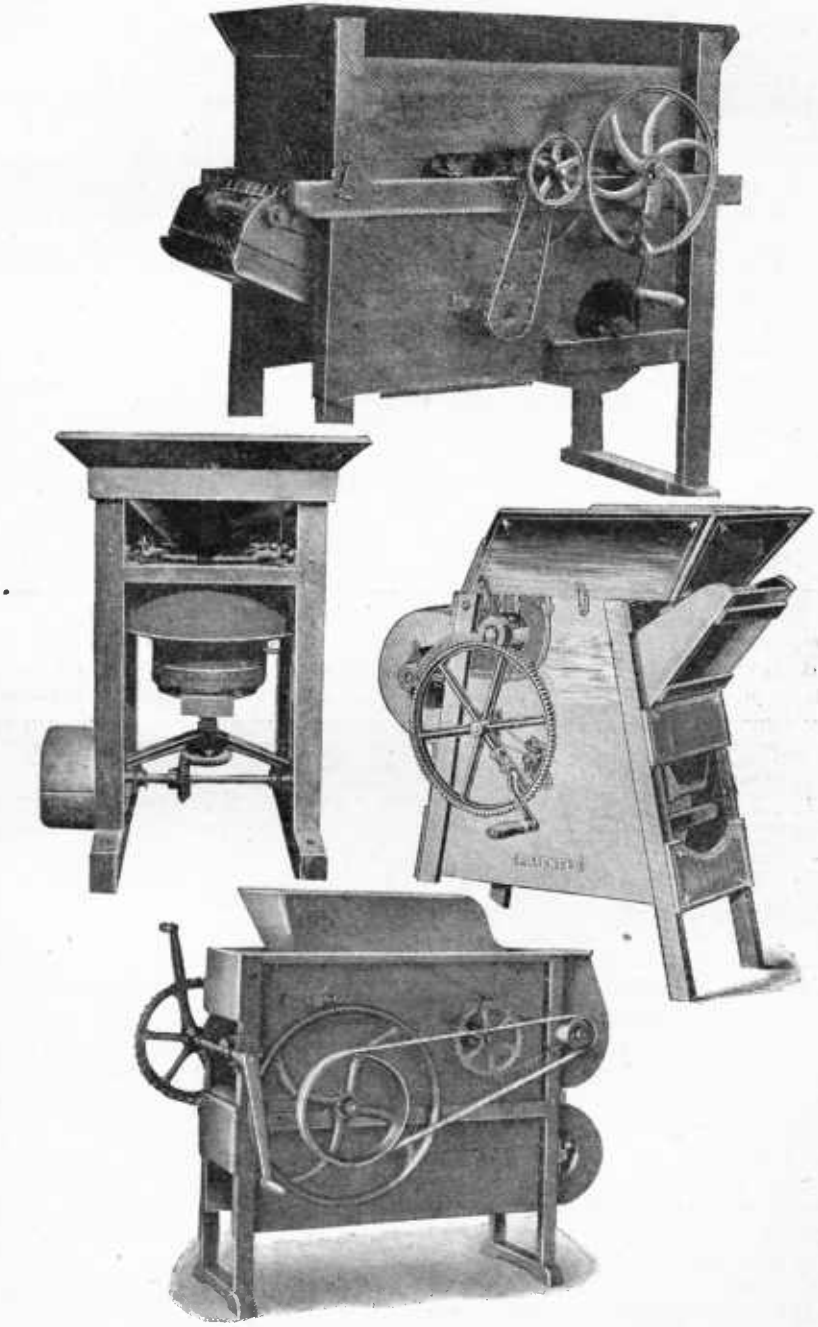


FIG. 2.—Types of hullers used for hulling cowpeas.

RECLEANING.

The value of cowpeas may be improved by recleaning after thrashing or hulling. This is especially true of cowpeas flailed out by hand. If a small huller, as illustrated in Figure 2, is used, the cowpeas may be run through it a second time to remove more of the foreign matter remaining after the hulling operation. A more thorough job of recleaning, however, may be done on a small cleaning machine that can be purchased at a cost of $40 to $50.[4] Such a machine may be used to advantage for cleaning other kinds of seeds as well as cowpeas and should prove a profitable investment on most farms.

In preparing cowpeas for market it is well for the grower to keep in mind the quality of seed he would like to get were he to buy cowpeas for planting and to endeavor to bring his product up to this high standard. A high-quality product usually commands a high price. Cowpeas are no exception to this rule in spite of the fact that they sometimes are accorded an inferior place in the list of farm crops. To show more clearly what can be accomplished by recleaning cowpeas, samples were collected from various producing sections and analyses made to determine the percentage of foreign matter present. The results are given in Table 3 and illustrated in Figures 3 and 4.

TABLE 3.—*Inert matter present in samples of cowpeas, and value compared with clean seed.*

Sample No.	Variety.	Pure seed.	Inert matter.[1]	Value compared with clean seed at $4 per 100 pounds.
		Per cent.	*Per cent.*	
1	Brabham	96.5	3.5	$3.86
2	Unknown	87.5	12.5	3.50
3	Mixed	91	9	3.64
4	Iron	81.5	18.5	3.26
5	Brabham	98.5	1.5	3.94
6	Mixed	97.2	2.8	3.89
7	Whippoorwill	99	1	3.96
8	Clay	99	1	3.96
9	Whippoorwill	98	2	3.92
10	Mixed	98.5	1.5	3.94
11	Brabham	96	4	3.84
12	Whippoorwill	95	5	3.80

[1] Inert matter includes broken seeds, dirt, stones, sticks, chaff, and other similar material.

Practically all of the foreign matter and light-weight and broken seeds in the samples analyzed could have been removed on the farm by running the cowpeas through a small cleaning machine. The farm is the logical place for recleaning cowpeas, because the screenings can be utilized more profitably by the grower for feeding to live stock than by any other agency. Before cowpeas can command the highest price they must be recleaned, and the increased price justly goes to the person or agency performing such service. The impression prevails among some growers that recleaning is not necessary because they apparently obtain as high price for their stocks without recleaning. This may be true to a limited extent, but the fact remains that if the standard of value for cowpeas is ever to be raised so that growers may hopefully expect a higher price for their product the quality must be improved.

[4] Edler, G. C.: Seed Marketing Hints for the Farmer. U. S. Department of Agriculture., Farmers' Bulletin No. 1232, 1921.

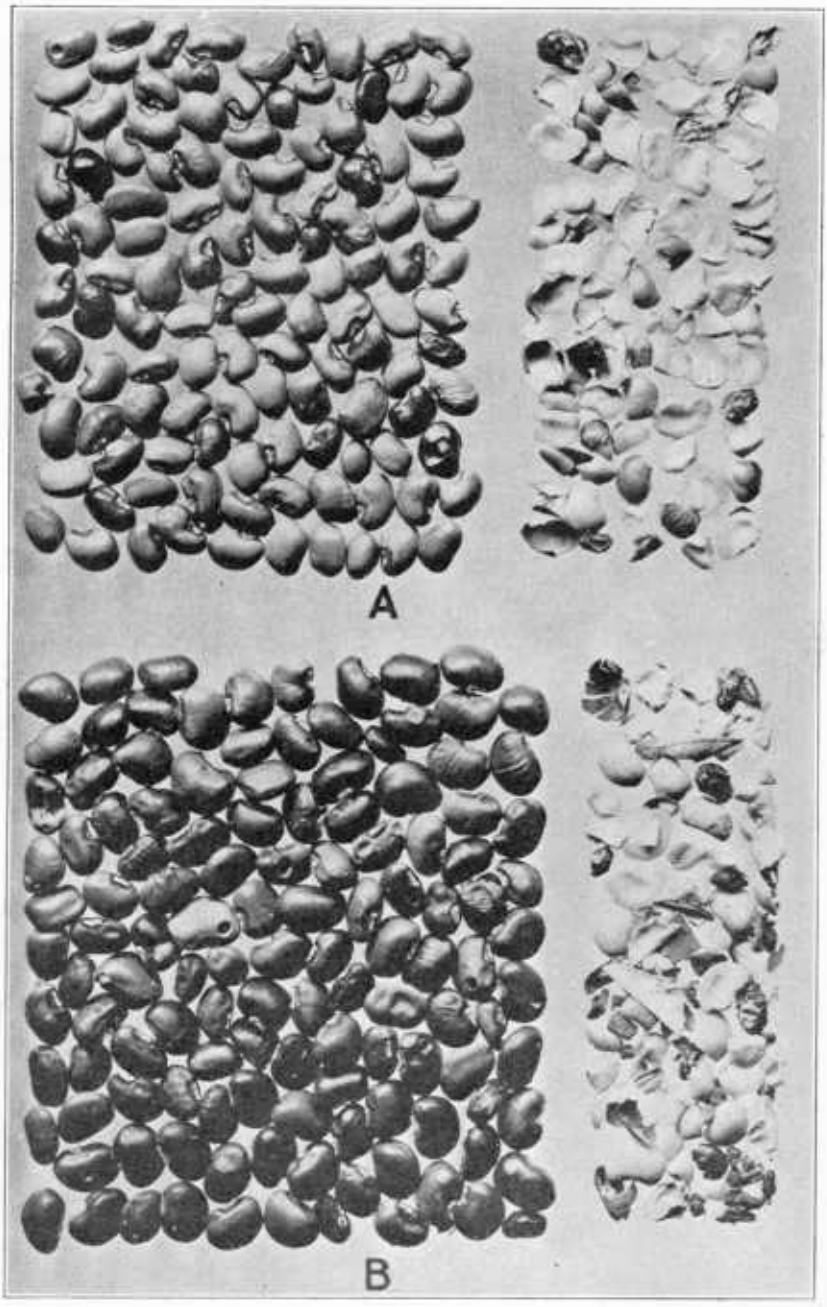


FIG. 3.—Cowpeas (*A*) machine-thrashed containing 18.5 per cent broken seeds by weight: (*B*) contains 12.5 per cent broken seeds and chaff. All natural size.

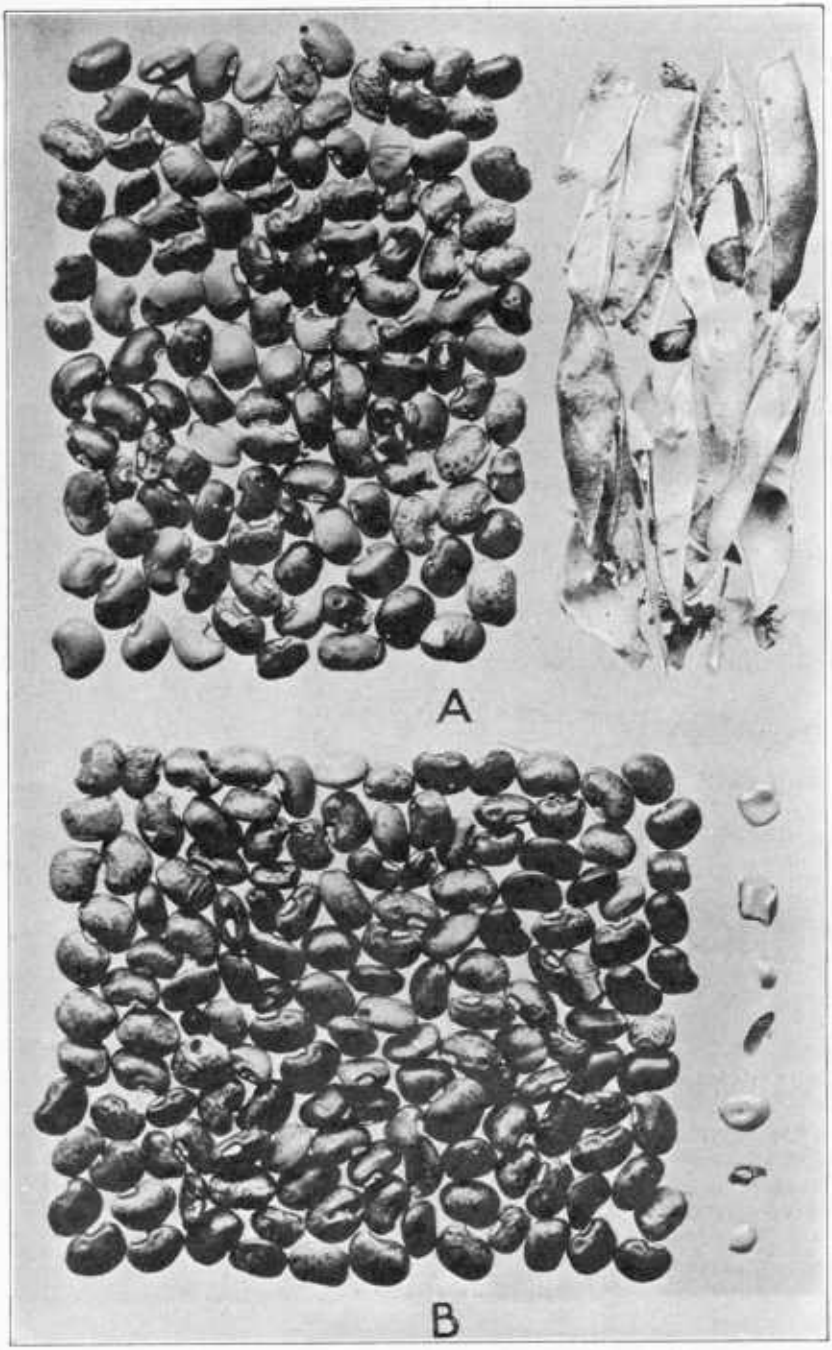


FIG. 4.—Cowpeas (*A*) thrashed or flailed out by hand, containing 9 per cent inert matter, mostly hulls; (*B*) machine-thrashed, free of chaff and dirt, and containing only 1 per cent broken seeds by weight. All natural size.

The last column in Table 3 shows the value of 100 pounds of cowpeas, like sample, when recleaned stock is worth $4 per 100 pounds. On this basis the value of sample No. 4 is 74 cents per 100 pounds less than the value of clean seed. In this case the loss is occasioned almost wholly by the presence of broken seeds. (See Fig. 3, A.) The cowpeas from which this sample was taken were thrashed or hulled by machinery. Such a large percentage of broken seeds, however, shows that the machine was carelessly operated. By operating the thrasher or huller at the proper speed and, if necessary, by making other simple adjustments as recommended by the manufacturers, this loss may be prevented.

The inert matter in sample No. 3 is composed principally of hulls and chaff. (See Fig. 4, A.) This lot was flailed out by hand and was not cleaned as thoroughly as it might have been, although no cleaning machine or fanning mill was available. Nine pounds of such inert matter were present in each 100 pounds and, if clean cowpeas were selling at $4 per 100 pounds, this lot was worth only $3.64 per 100 pounds. The reduced value is reflected in the price received by the grower and the maximum price may reasonably be expected only when the stocks for sale have been recleaned properly. It will be noted that samples No. 7 and No. 8 contain only 1 per cent of inert matter and, on the basis of $4 per 100 pounds for clean seed, are worth $3.96 per 100 pounds. All hulls and chaff were cleaned out and only an insignificant quantity of broken seeds is present as illustrated in Figure 4, B. Any one or all of the samples shown in Table 3 could have been cleaned on the farm as thoroughly as sample No. 7 and the price to the grower increased accordingly.

SACKING.

Heavy losses are incurred through shipping cowpeas in poor bags, improperly or insecurely tied or sewed, and complaints on the part of dealers regarding the poor condition of shipments on arrival from this cause are frequent. Adjustments in cases of this kind are difficult and the grower usually is at a disadvantage and suffers the greater loss.

Cowpeas should be sacked in new even-weight bags, preferably of 100 pounds capacity. Secondhand bags may serve the purpose, provided they are strong and in good condition. The bags should be of 10-ounce burlap, or heavier, although a more expensive seamless cotton bag may be used if desired. They should be sewed or tied with strong twine.

It is a common thing for growers to market their cowpeas locally in all sorts of containers—sacks, barrels, boxes, or any receptacle that will enable them to get the cowpeas to the shipper's warehouse. The cowpeas are poured into bins and in some cases the various containers are returned to their owners. Before making a shipment it is necessary for the shipper to reclean, if this service has not been performed by the grower, and resack the entire lot. The service of sacking necessarily carries a cost with it and the agency rendering the service is entitled to reimbursement. By performing this service on the farm the grower will receive an increased price for his cowpeas. His product will be more attractive in appearance and in a readily salable condition.

STORAGE.

Cowpeas should be stored in a dry place and protected from weevils and rodents. It is a common practice in the cotton States to pick the pods by hand and store them until the winter months before thrashing or hulling. There is probably an advantage in this arrangement in that it defers the hulling until after the rush field work of harvesting other crops. On the other hand, there are many more advantages in thrashing or hulling cowpeas as soon as thoroughly dry, and in recleaning and storing them in sacks. The principal advantages accruing from this procedure are: Less storage space is required; the straw, hulls, and screenings are available for feeding to live stock or for other disposition; the bags are easily transferred from place to place if desired and sales may be made at an opportune time with the least possible delay; and the cowpeas may be treated promptly and effectively with carbon disulphid to destroy any weevils or other insect pests present, thereby preventing serious loss from this source.

The treatment with carbon disulphid is of major importance because of the susceptibility of cowpeas to weevil damage. From 6 to 10 months elapse between the time cowpeas are harvested and the time they are needed for planting the following season. Most of the cowpeas are harvested during the months of August, September, and October, as shown in Table 4.

TABLE 4.—*Percentage of cowpeas harvested monthly.*[1]

State.	June.	July.	August.	September.	October.	November.
	Per cent.	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*	*Per cent.*
North Carolina	.....	3	10	39	30	18
South Carolina	.....	4	15	36	35	10
Georgia	2	7	23	42	22	4
Alabama	.....	10	26	43	20	1
Mississippi	1	6	21	36	28	8
Louisiana	1	7	20	45	27	.....
United States	.9	7.6	21.8	41.1	23.8	4.8

[1] Adapted from Monthly Crop Reporter, September, 1920.

The movement from growers' hands begins around November 1, increasing in volume through December, January, and sometimes February. On the average, about 40 per cent of the previous year's crop is sold by growers before January 15. The percentage of the total commercial supply of cowpeas of a given year's crop that had moved from growers' hands up to a specific date the following January is shown in Table 5.

TABLE 5.—*Percentage of cowpeas that moved from growers' hands up to a specific date.*

Crop.	Date.	Per cent.
1921	Jan. 28, 1922	69
1920	Jan. 15, 1921	41
1919	Jan. 15, 1920	44
1918	Jan. 15, 1919	31
1917	Jan. 1, 1918	24

The heaviest demand from farmers, however, is during the late spring and early summer months. This illustrates the long period over which cowpeas must be carried. It gives ample time for recleaning the stocks and transporting them from producing to consuming sections. They must be stored during much of this period, however, and this fact, together with the warm weather prevailing in the more important producing sections, increases the chances of weevil infestation, and some effective means of reducing such injury is essential if the cowpeas are to be of high quality for seed.[5]

GERMINATION OF SEED.

The value of cowpeas for seed purposes is directly affected by the percentage that will grow. Germination is as important in cowpeas, from the standpoint of the farmer who buys them for seed, as in other field crop seeds. There may be those, among both growers and consumers, who do not appreciate this fact, but it is obvious that cowpeas that will not grow are of no more value for planting purposes than any other kind of dead seed.

A realization of this fact by growers who produce cowpeas for market is all the more important when it is remembered that by far the larger percentage entering commercial channels is sold and used for seed. Furthermore, cowpeas unfit for seed and sold for feed command a very low price, while stocks that are pure as to variety, recleaned, and high in germination are most valuable for seed and sell at the highest price.

When harvest is delayed because of continued rains, cowpeas almost invariably are of low germination. The damage from this cause is clearly visible and may be so great as to make the cowpeas not worth harvesting. Cowpeas that are harvested promptly at maturity, thrashed when properly cured, stored in a dry place, and protected from weevil or other insect injury are usually of high viability. The percentage of germination, however, should not be assumed. A test is always advisable before offering cowpeas for sale. When advertised for sale or delivered by a common carrier, for seed, a number of States having seed laws (see p. 19) require that the percentage of germination, together with other information, be shown on the tag or label attached to each bag or other container.

MARKETING COWPEAS.

The cowpea market is one of uncertainty and is rife with petty speculation. It would seem to be a simple task to collect the surplus stocks from heavy-producing areas and redistribute them among farmers in consuming territory. The unstable market is due largely to the variation in demand and uncertainty of production in any section from year to year. The demand is limited and is affected by the buying power of the farmers, the quality of the crop for planting purposes, and the comparative price and supply of seed of other crops, notably soy beans and velvet beans, which compete in the crop rotation.

---

[5] Back, E. A., and Duckett, A. B.: Bean and Pea Weevils. U. S. Department of Agriculture, Farmers' Bulletin 983, 1918. Hinds, W. E.: Carbon Disulphid as an Insecticide. U. S. Department of Agriculture, Farmers' Bulletin 799, 1917.

As has already been emphasized, production is small per farm and the surplus to be marketed is difficult to determine. The United States Department of Agriculture issues a report each year, during

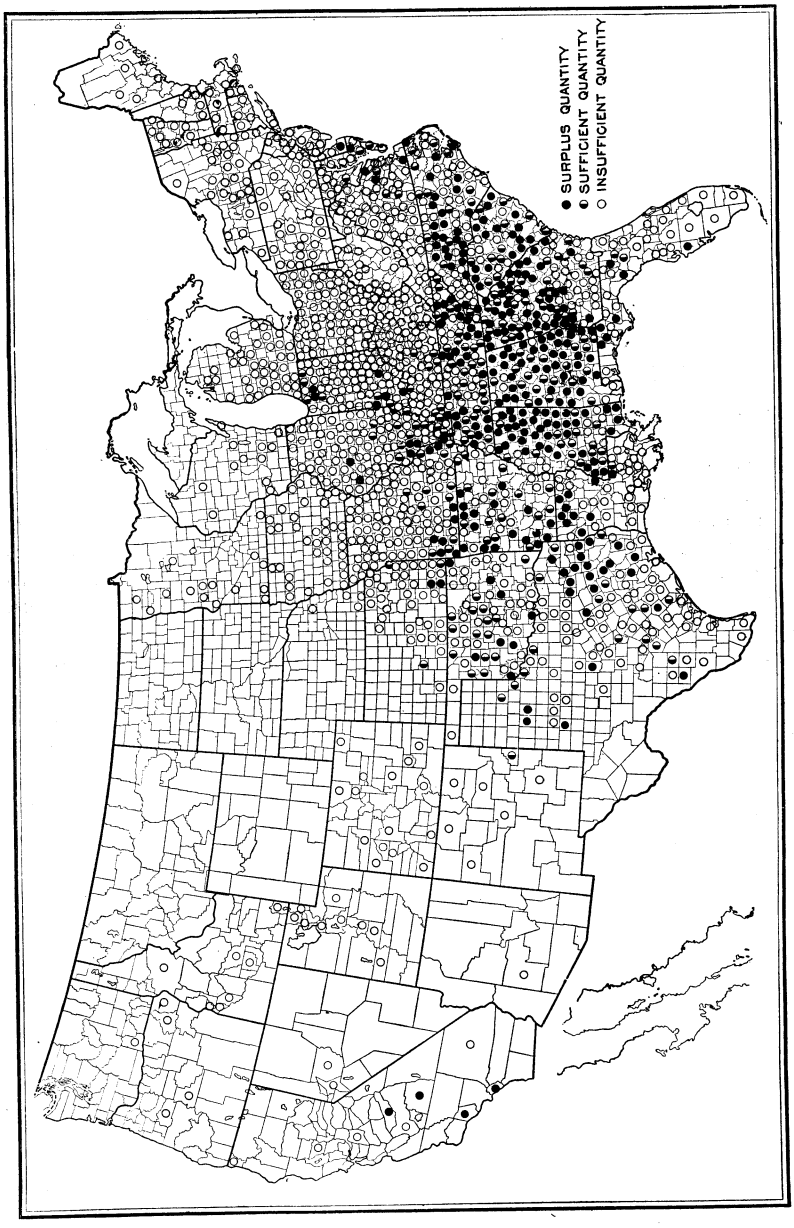


FIG. 5.—Map showing the normal consuming and surplus producing areas of cowpeas.

November, which shows the comparative acreage, yield, and price of the new crop. At intervals of two or four weeks thereafter during the months of December, January, and possibly February, when the

bulk of the cowpeas is sold by growers, reports are issued that indicate the percentage of the crop in various sections that has been sold, the prices paid, and the quality of the crop for seed. Wholesale selling prices quoted by dealers at the large terminal markets are issued by the department weekly from January 1 to May 31, inclusive. All of this information is available to growers, shippers, dealers, and consumers through the medium of "Weather, Crops, and Markets," [6] and is intended to be a guide to all agencies in buying or selling cowpeas.

The surplus producing States of Mississippi, Alabama, Georgia, South Carolina, and North Carolina are probably the heaviest consumers of cowpeas. There are a number of counties in these States which do not produce a surplus and which ship in large quantities for seed from other counties. After the demand has been supplied within these States the net surplus finds an outlet in Louisiana, Texas, Oklahoma, Arkansas, Missouri, Tennessee, Illinois, Indiana, Ohio, Virginia, Maryland, Florida, and to a less extent in States farther north and east. There are also a few counties or localities in these States in which a surplus is produced, but for the most part this is consumed in neighboring territory. The areas which normally ship in cowpeas are shown in detail by counties, designated by open circles, in Figure 5.

The geographical preference for varieties is an important factor in the commercial distribution of cowpeas. The late-maturing, vine-producing varieties, such as Clay, Iron, and Red Ripper, are preferred in the Mississippi Delta and the Sugar Belt of Louisiana, and are distributed mostly through New Orleans. In the Northern and Eastern States the Whippoorwill, New Era, and other early maturing varieties are more in demand. Some of the principal wholesale distributing points for these varieties are St. Louis, Mo., Louisville, Ky., Baltimore, Md., Richmond, Va., and Chattanooga, Nashville, and Memphis, Tenn. The Brabham, Iron, and Victor are more desirable in the wilt-infected areas of the South because of their resistance to wilt and root-knot, and to a great extent have replaced other standard varieties on farms where these diseases prevail.

Given a product which has been prepared properly for the market and a mental picture of the consuming areas and varieties desired, the grower is interested to know how he may sell his product or get in touch with consumers in the territories where his varieties are preferred. There are four principal agencies through which a grower may sell cowpeas: (1) To neighboring farmers, (2) to local shippers, (3) to distant seedsmen, and (4) to distant farmers through farm paper advertising. The estimated percentage of growers who market their cowpeas by each of the various methods is shown in Table 6 and illustrated in Figure 6. The best method of selling for a grower will depend largely upon his location and the quantity of cowpeas for sale.

---

[6] "Weather, Crops, and Markets" is issued weekly by the United States Department of Agriculture and is sent free to persons cooperating with the department by furnishing reports and other information or regularly to anyone desiring it upon receipt of the subscription price of $1 yearly. Remittances must be made to the Superintendent of Documents, Government Printing Office, Washington, D. C.

TABLE 6.—*Percentage of growers who market cowpeas through various agencies.*

Agency.	Per cent.	Agency.	Per cent.
Direct to neighboring farmers	38	Through farm paper advertising	21
To local shippers	21	To traveling seed buyers	4
To distant seedsmen	14	By advance growing contract	2

SELLING TO NEIGHBORING FARMERS.

In marketing cowpeas, growers should consider first the possible demand from other farmers in the neighborhood. A grower may produce a surplus of cowpeas and sell them to a local shipper or ship them direct to a distant seedsman, when local farmers would have bought them at possibly higher prices than were obtained. The result in

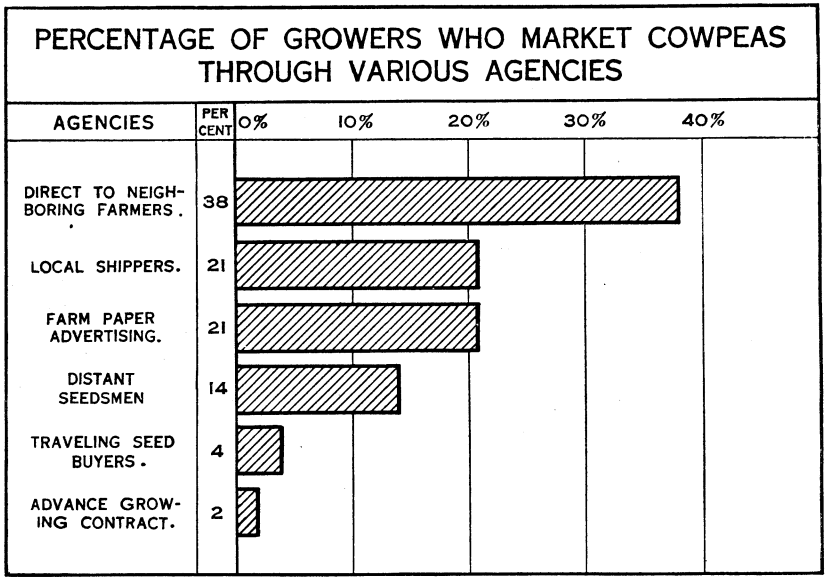


FIG. 6.—Chart showing percentage of growers who market their cowpeas through various agencies.

such cases is that cowpeas have to be shipped back into the locality to supply the deficit and almost invariably at increased prices. Few localities where this crop is grown consume as many cowpeas as might be consumed economically and, in most instances, there is no one who can afford to pay more for cowpeas, if he needs them, than a farmer in the immediate neighborhood of the producer. This is true especially of States or sections where only a small percentage of the farmers produce a surplus of cowpeas, and many more farmers find it necessary to buy their seed supply.

SELLING TO LOCAL SHIPPERS.

After supplying the local farm market, growers should consider the possibility of selling their cowpeas to local shippers. Usually such shippers are located in every town in sections where a surplus of cowpeas is produced. As shown in Table 6 and in Figure 6, 21 per cent

of the growers market their cowpeas through this agency. The local shipper renders a service by assembling a number of small lots of cowpeas purchased from as many farmers, recleaning and resacking them if necessary, and shipping them in carload lots to distant wholesale distributing markets. He provides a ready market where growers may sell their product at any time and receive a prompt cash settlement. A minimum amount of the grower's time is occupied in the entire transaction. The shipper assumes the risk of losses in storage and of finding a satisfactory market. For these services he is entitled to a reasonable compensation, but, because of the uncertainty of the market, deserving profits may be replaced by a net loss.

If growers cooperate with shippers by preparing their cowpeas properly for the market as already outlined, and do not rush them on the market too early in the season or at a time when the demand is poor, shippers can operate on a much lower margin with safety and pay a correspondingly higher price to growers. Delivery to local shippers should be made in as large lots as possible. The surplus cowpeas of the average farm can be delivered in a single trip with a team. It usually is time lost on the part of the grower to market cowpeas in "installments" when one trip and one transaction would complete the job. Also, it costs shippers practically as much to receive, weigh, pay for, and record a 1-bag lot as it does a 10-bag or larger lot.

There usually is keen competition between local shippers at the various shipping points which tends to insure growers a reasonable price for cowpeas. It frequently happens, however, that shippers are not thoroughly familiar with the principal producing and consuming areas, wholesale distributing points, varietal preferences, and various other price-affecting factors. Growers, as well as shippers, may inform themselves through reports issued by the Department of Agriculture regarding these fundamentals and regarding prospective production, prices, and movement of the new crop, and thus be able to determine whether prices offered by local shippers are in line with those prevailing elsewhere.

SELLING TO DISTANT SEEDSMEN.

If there is no local demand, either from farmers or local shippers, for the surplus production of cowpeas, or if the local market is unsatisfactory for any reason, growers should endeavor to find a market elsewhere. The first probable outlet to be considered is through seedsmen and dealers in large distributing centers.

When contemplating selling to such seedsmen and dealers a grower should first take inventory of his stocks of cowpeas by varieties, and if he does not have a minimum carload (24,000 to 30,000 pounds), ascertain whether he might make up this quantity with his neighbors. He should then draw a small representative sample of each variety, submit it to several seedsmen who are probably in the market, stating the quantity of each variety offered, and ask for quotations f. o. b. grower's shipping point. Each sample drawn should contain at least 4 ounces and be numbered or marked to identify it with the lot from which it was drawn. It should be divided and half of it retained by the grower for use in case of a possible dispute as to the quality of the cowpeas shipped.

If one of the offers received is accepted by the grower he should wire acceptance immediately, confirming it by letter. Shipment should be made promptly or at any time specified in terms of sale. The quality of stocks shipped should compare favorably with that of the samples submitted and the shipment should be made up of varieties and quantities as sold. It is necessary that a careful check be made of the weights by varieties, and to facilitate this it is desirable that the bags be of 100 pounds net capacity and that they be tagged or stenciled with the variety of cowpeas contained. Shipments of cowpeas usually are made on terms of bill of lading attached to sight draft for 60 to 80 per cent of the amount of the invoice, the balance to be paid upon arrival and acceptance of the goods, or on terms of arrival draft for the full amount.

SELLING THROUGH FARM-PAPER ADVERTISING.

Farm-paper advertising is the agency through which growers may receive, on the average, the largest gross return for cowpeas. But, on the other hand, the net returns may be less than might be received through any of the other agencies already mentioned. There are instances, however, where this method of disposing of surplus cowpeas seems to be most effective. If there is no local farm demand, if there is no local shipper, or if the only one is unbusinesslike in his methods and fails to render the services demanded by his position, and if satisfactory contact can not be established with a distant seedsman, then the most practical outlet remaining is through farm paper, or possibly weekly and daily newspaper, advertising. If all of these agencies are available to a grower it becomes a local problem as to which he should use. His one guide in choosing the agency for his needs should be to choose the one which will return him the largest net amount for his product.

The purpose of an advertisement is to bring the seller into contact with prospective buyers. It should be so worded as to describe briefly and yet clearly the product for sale. The selling price should be included, so that the advertisement will contain all of the information that a buyer should have and he can place an order without making further inquiry. Suggested forms of advertisements are shown below:

Cowpeas, Recleaned.—Sacked in new bags; 900 pounds Whips, $4 per 100 pounds; 600 pounds Brabhams, $4.50 per 100 pounds.
A GROWER, *Anytown, U. S.*

Cowpeas for Sale.—1,200 pounds Clays, slightly mixed with Whips, $3.90 per 100 pounds. Sample submitted if desired.

[Name.] [Post office.] [State.]

Cowpeas.—1,500 pounds sound, recleaned Brabhams, mixed with 15 per cent Irons, $4.25 per 100 pounds, f. o. b.
INGLESIDE FARM, *Mayville, N. C.*

The cost of running an advertisement in the classified columns of most farm papers ranges from 5 cents to 15 cents a word for each issue, varying largely with the circulation of the various papers. At the low rate, a 30-word advertisement may be run three consecutive issues at a total cost of $4.50. Sales of only 1,500 pounds from such an advertisement would distribute the advertising cost to 30 cents per 100 pounds. An advertisement does not always bring the desired

results from a single insertion and it may be necessary to repeat it several times, thus increasing the cost per unit of quantity sold. Most papers require that cash accompany all orders for advertising.

It seems advisable that growers having only a few hundred pounds of cowpeas to sell, defer advertising until the early spring months. The person reached by farm-paper advertising is the farmer. Farmers do not often anticipate their needs for cowpeas early in the season and are more receptive to offers placed before them nearer the spring planting season.

Orders for cowpeas usually are accompanied by cash, and shipment should be made promptly. All inquiries received should have prompt attention whether they are accompanied by an order or not. Any orders sent in after the supply is sold out should be acknowledged and if money is inclosed it should be returned at once. Reputation for promptness in handling all of the details connected with selling by mail order is a valuable asset. Care should be taken to fill all orders with the stipulated variety and quantity. The cowpeas shipped should be of high quality or just as represented in advertisements, letters, or by samples.

In selling cowpeas direct to other farmers through farm-paper advertising, or through any other medium when delivery is made by a common carrier, growers come into contact with the requirements of the State seed laws. Most of the States have laws which require that seeds, including cowpeas, when sold within the State must bear a label or tag showing all or a part of the following information: Pure seed, percentage; inert matter, percentage; foreign seed, percentage; noxious weed seed, names and number or percentage; germination, percentage, together with date of test; locality where, and the year when, grown. The kind of seed and the name and address of seller must be given. Information regarding the provisions of any of the State seed laws as affecting cowpeas may be obtained from the State departments of agriculture or the State agricultural experiment stations.[7]

Selling cowpeas through farm-paper advertising entails much work which the average grower may not have the time or inclination to do. To attempt to use this method before giving careful consideration to the advantages of local agencies and the disadvantages and expense of the mail-order method might prove a costly venture. On the other hand, a farm-paper advertisement often is the only accessible source of supply for a farmer who desires to purchase cowpeas for seed. He may be in a section where cowpeas are not generally grown and where no seed is available either from local growers or dealers. But through the medium of an advertisement inserted in his farm paper by a grower located in a distant producing section he may be able to obtain the cowpeas desired.

THE SELLING PRICE OF COWPEAS.

The selling price of cowpeas varies with the commercial supply, the quality of the crop for seed, the variety, and the nearness to planting date. When the crop begins to move during November no one seems to know what price should be paid. Prices offered both by local

[7] At this time (January, 1923), all States have seed laws *except* the following: Alabama, Connecticut, Florida, Georgia, Kansas, Massachusetts, Mississippi, Nevada, and Rhode Island.

shippers and dealers in wholesale distributing markets at that time usually are lower than the price obtained for the bulk of the crop later in the season. To buy cowpeas before the price level has been reached and to store them, pending the opening of the spring demand, constitute risky speculation, and shippers and dealers can not be expected to assume the risk on a narrow margin of profit. The grower, however, may well carry the cowpeas until a market is established. With the commercial supply being carried for two or three months by several thousand growers, the individual risk is reduced to a minimum.

SEASONAL TREND OF PRICES.

The price paid growers for cowpeas is almost invariably higher as the planting season approaches. This is because stocks are moving

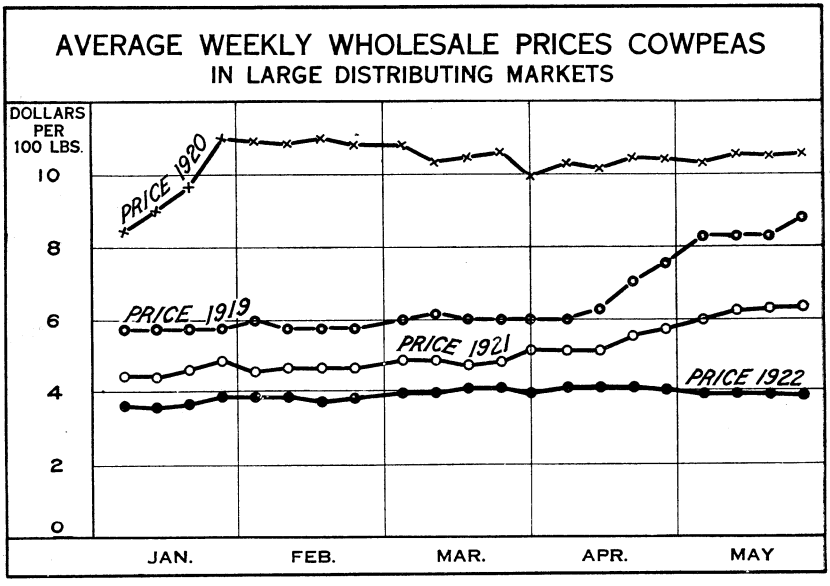


FIG. 7.—Chart showing the average weekly wholesale selling prices of cowpeas at important markets, 1919–1922.

more freely from growers' hands through the various channels of distribution to farmers in consuming sections. By storing cowpeas on the farm temporarily until other farmers are ready to buy, growers may perform a service for which they will be well paid. This is shown clearly in Table 7, which gives the average prices over a period of years paid to growers on the 15th of each month from the time the new crop begins to move from growers' hands in October until the movement is over in June of the following year. Although the price paid for any year's crop may not advance materially as the season progresses, the table shows that there is little if any decline. On the other hand, the price paid for the 1916 crop advanced over 100 per cent from October 15 to June 15, the 1917 crop advanced 37 per cent from October 15 to March 15, the 1918 crop advanced 50 per cent from November 15 to June 15, and the 1919 crop advanced 86 per cent from October 15 to May 15.

TABLE 7.—*Average prices paid growers for cowpeas in the United States (per 100 pounds).*

Month.	1915 crop.	1916 crop.	1917 crop.	1918 crop.	1919 crop.	1920 crop.	1921 crop.
	1915	*1916*	*1917*	*1918*	*1919*	*1920*	*1921*
Oct. 15	$2.60	$2.50	$3.65	$3.90	$4.35	$4.60	$3.35
Nov. 15	2.50	2.65	3.75	3.85	4.50	4.10	3.10
Dec. 15	2.50	2.90	4.00	4.00	4.65	3.85	2.95
	1916	*1917*	*1918*	*1919*	*1920*	*1921*	*1922*
Jan. 15	2.60	3.15	4.35	4.00	5.25	3.25	2.85
Feb. 15	2.60	3.50	4.85	4.15	6.15	3.40	3.00
Mar. 15	2.60	3.85	5.00	4.15	6.60	3.40	3.10
Apr. 15	2.50	4.25	4.90	4.50	7.00	3.60	3.10
May 15	2.50	4.90	4.75	4.85	8.10	4.10	3.15
June 15	2.35	5.15	4.25	5.75	8.10	4.40	3.05

The trend of wholesale selling prices is upward as the planting season approaches. This fact is illustrated in Figure 7, which shows in graphic form the average weekly wholesale selling price of cowpeas during the main selling season for the years 1919 to 1922, inclusive. The upward trend at each of six wholesale markets, Baltimore, Richmond, Louisville, Chicago, St. Louis, and Kansas City, Mo., for the years 1920 to 1922, inclusive, is given in Table 8.

TABLE 8.—*Weekly average wholesale selling price of cowpeas (per 100 pounds).*

Date.	Baltimore.	Richmond.	Louisville.	Chicago.	St. Louis.	Kansas City.
1920.						
Jan. 3	$6.00	$7.75	$10.00	$9.50	.....	$10.00
10	7.00	7.75	10.00	7.50	.....	9.75
17	7.00	8.00	10.00	7.50	.....	10.50
24	7.00	9.00	11.00	8.00	.....	12.50
31	9.00	10.00	11.00	8.50	$14.00	12.50
Feb. 7	9.00	10.00	11.00	9.00	13.00	12.50
14	9.00	10.00	11.00	9.50	13.00	12.00
21	9.00	10.00	11.00	9.50	12.50	12.00
28	9.00	10.00	10.00	10.00	12.50	12.00
Mar. 6	9.00	10.00	10.00	10.00	12.50	12.00
13	9.00	9.75	10.00	10.00	11.00	11.50
20	9.00	9.75	10.00	10.00	11.00	11.50
27	9.00	9.75	10.00	10.00	10.50	11.50
Apr. 3	9.00	9.00	10.00	10.00	10.50	11.00
10	9.00	9.00	10.00	10.00	10.50	11.00
17	9.00	9.00	10.00	10.00	10.50	10.50
24	9.00	10.00	10.00	10.50	11.00	10.50
May 1	9.00	10.00	10.00	10.50	11.00	10.50
8	9.00	10.15	10.50	10.50	11.00	11.00
15	10.00	10.25	10.50	10.50	11.00	11.00
22	10.00	10.25	10.50	10.50	11.00	11.00
29	10.00	10.25	10.50	10.50	11.00	11.00
1921.						
Jan. 8	4.50	5.00	4.50	4.00	4.00	.....
15	4.50	5.00	4.50	4.00	4.00	.....
22	4.50	5.00	4.85	4.60	4.00	.....
29	4.50	5.25	4.50	6.00	4.00	.....
Feb. 5	4.50	5.25	4.50	4.75	4.00	4.25
12	4.50	5.25	4.50	4.75	4.25	4.50
19	4.50	5.25	4.50	4.75	4.25	4.50
26	4.50	4.80	5.00	4.75	4.25	4.75
Mar. 5	4.50	4.80	6.00	4.50	4.35	5.00
12	4.50	4.80	6.00	4.50	4.35	5.00
19	4.50	4.80	5.00	4.50	4.50	5.00
26	4.50	4.80	5.00	4.50	4.50	5.00
Apr. 2	5.00	5.00	5.00	5.40	4.75	5.00
9	5.00	5.00	5.00	5.40	4.75	5.00
16	5.00	5.00	5.00	5.40	4.75	5.00
23	5.75	5.60	6.00	6.00	4.90	4.75
30	5.75	6.00	5.50	6.00	6.00	4.75
May 7	6.00	6.25	5.50	6.00	6.65	5.75
14	6.00	6.35	6.60	6.00	6.35	5.75
21	6.25	6.50	6.50	6.00	6.45	5.75
28	6.50	6.65	6.50	6.00	6.50	5.75

TABLE 8.—*Weekly average wholesale selling price of cowpeas (per 100 pounds)*—Contd.

Date.	Baltimore.	Richmond.	Louisville.	Chicago.	St. Louis.	Kansas City.
1922.						
Jan. 1	$3.50	$4.50	$3.60	$3.00	$3.35	$3.75
7	3.50	4.50	3.60	3.00	3.35	3.75
14	3.50	4.50	3.75	3.00	3.00	3.75
21	4.00	4.50	3.75	3.00	3.00	3.75
28	4.00	4.50	4.00	3.50	3.35	3.75
Feb. 4	4.00	4.40	4.00	3.50	3.50	3.75
11	4.00	4.40	4.00	3.50	3.50	3.75
18	4.00	4.40	4.00	3.50	2.50	3.75
25	4.00	4.40	4.00	3.50	3.00	3.75
Mar. 4	4.00	4.40	4.00	3.50	3.50	3.75
11	4.00	4.40	4.00	3.50	3.50	3.75
18	4.00	4.40	4.00	3.50	3.75	4.00
25	4.00	4.40	4.00	3.50	3.75	4.25
Apr. 1	4.00	4.00	4.00	4.00	3.75	4.00
8	4.00	4.40	4.00	4.00	3.75	4.00
15	4.00	4.40	4.00	4.00	3.75	4.00
22	4.00	4.40	4.00	4.00	3.75	4.50
29	4.00	4.25	4.00	4.00	3.75	4.50
May 6	4.00	4.00	4.00	4.00	3.75	4.50
13	4.00	4.00	4.00	4.00	3.75	4.50
20	4.00	4.00	4.00	.....	3.75	4.50
27	3.90	4.00	4.00	.....	3.75	4.25

It will be noted that there may be some variation between the prices at two or more markets on the same date. But with very few exceptions there is the same general upward trend at all markets. These tables and the chart are further evidence of the possibilities of a better price to the grower who delays marketing his cowpeas until the consumer is ready to purchase.

PRICE VARIATIONS IN DIFFERENT SECTIONS.

There is considerable variation between the prices received by growers in different producing sections. The average price received by growers for the crops of 1917 to 1921, inclusive, is shown by States or districts in Table 9.

TABLE 9.—*Average price paid to growers for cowpeas for crops 1917–1921 (per 100 pounds).*

State or district.	1917 crop.	1918 crop.	1919 crop.	1920 crop.	1921 crop.
Northern Alabama	$3.60	$4.05	$6.25	$2.90	$2.45
Southeastern Alabama	3.50	3.85	6.65	2.40	2.45
Southwestern Alabama	3.40	3.50	5.25	2.40	2.50
Arkansas	5.00	3.60	6.65	3.00	2.40
Delaware	4.40	4.60	6.15	4.10	3.65
Northern Georgia	3.65	3.55	5.25	2.95	2.55
Southeastern Georgia	4.35	4.00	6.15	3.00	2.50
Southwestern Georgia	3.95	3.90	6.60	2.65	2.45
Illinois	3.75	5.00	6.10	2.75	2.10
Indiana	4.30	4.00	5.35	3.05	2.45
Louisiana	4.15	3.40	7.00	3.00	2.40
Northern Mississippi	3.75	3.75	5.95	2.75	2.55
Southeastern Mississippi	3.85	4.90	6.05	2.75	2.70
Southwestern Mississippi	4.40	3.60	5.25	2.60	3.15
Missouri	3.35	3.50	5.90	2.60	2.40
Eastern North Carolina	5.15	4.25	6.55	4.00	3.90
Central North Carolina	5.10	3.50	5.25	3.70	3.50
Western North Carolina	4.15	3.80	5.75	3.45	3.80
Northeastern South Carolina	4.55	3.45	5.95	2.95	3.00
Southeastern South Carolina	4.15	3.80	5.55	2.90	2.95
Western South Carolina	4.15	3.90	5.70	2.65	2.95
Eastern Tennessee	4.30	3.65	5.85	2.95	2.55
Central Tennessee	4.55	4.40	6.00	2.95	2.55
Western Tennessee	3.80	4.85	6.90	2.60	2.60
Texas	4.05	3.65	6.00	3.00	2.40
Other States	4.90	4.40	6.25	3.00	2.10

The variation in prices as shown is largely the result of the speculative nature of all offers for the crop, especially that portion which growers attempt to market early in the season. The tendency is for the price in various sections to become more nearly uniform as the selling season progresses.

RELATION OF VARIETY TO PRICE.

The variety is an important factor in determining the price. Some varieties sell at a premium of 25 to 50 per cent over the lowest-priced variety. Growers should recognize this fact and should preserve the identity of their cowpeas by varieties and market them by variety name. The variation in the selling prices of the different varieties is forcefully illustrated in the following reproduction of a number of advertisements as they appeared in farm papers:

COW PEAS

Brabham, Irons	$2.50
Clays, New Eras	$2.25
Whips, Mixed	$2.00

Sound stock, new bags, prompt shipment.

Peas, late Whips	2.25 bu.
Peas, early Whips	2.25 bu.
Mixed Peas	2.00 bu.
Iron Peas	2.50 bu.
Brabham Peas	3.00 bu.

F. O. B. check with order.

COW PEAS

Mixed Clays and Straight Whips $2.15. Straight Clays and Mixed Unknowns $2.25. Brabhams and Irons $2.35.

FEW HUNDRED BUSHELS Brabham Peas, $2.50 bushel; Whippoorwills, $2.25; 15 bushels mixed, $2.20.

Straight Iron Peas	2.50 per bu.
Straight Brabhams	2.75 per bu.
Bunch Speckle	2.25 per bu.
Mixed	2.00 per bu.

All F. O. B. here.

The same variation in prices of varieties occurs in quotations by wholesale seedsmen as illustrated in the following extracts from dealers' price lists:

COW PEAS

2-bu. Sacks Included
Split Packages, 6¢ Extra.

	Per bu.
New Era	2.50
Brown Whippoorwill	2.40
Grey Crowder	2.70
Blacks	2.85
Mixed	2.30
Black Eyes (Imp.)	1.90

COW PEAS

RECLEANED, SACKS FREE

	Per Bu.
Mixed	2.30
Brown Whippoorwill	2.40
Gray Whippoorwill	
Blacks	2.65
New Era	
Brabham	2.50
Clay	2.50

SACKS INCLUDED, 2½ BU. TO SACK

	Price per 100 lbs.	Per Bu.
Brabham	$4. 17	$2. 50
Whippoorwill—Brown	4. 09	2. 45
Whippoorwill—Gray		
Black Eye Imported 77% G	3. 33	2. 00
Black Eye Virginia	4. 58	2. 75
Gray Crowder or Whipp		
Clay	4. 25	2. 55
Groit	4. 33	2. 60
New Era	4. 08	2. 45
Mixed	3. 92	2. 35

PEAS

ALL RECLEANED, EVEN WEIGHT SACKS

	5 bu. @	25 bu. @
Small Virginia Black Eye	2. 55	2. 50
Large Virginia Black Eye	3. 00	2. 95
Jumbo Black Eye	3. 25	3. 20
Whippoorwill	2. 55	2. 50
New Era	2. 55	2. 50
Brabham	2. 80	2. 75
Groit	2. 80	2. 75
Mixed	2. 50	2. 45
Black	2. 85	2. 80

RECLEANED STOCKS. SACKS FREE

	5-bu. lots, per bu.	Per bu.
Mixed Cow Peas and Soja Beans	2. 65	$2. 75
Mixed Cow Peas	2. 75	2. 85
New Era Peas	2. 90	3. 00
Whippoorwill Peas	2. 90	3. 00
Red Ripper Peas	2. 90	3. 00
Clay Peas	2. 90	3. 00
Wonderful Peas	2. 90	3. 00
Iron Peas	3. 15	3. 25
Brabham Peas	3. 15	3. 25
Taylor Peas	3. 15	3. 25
Groit Peas	3. 15	3. 25
Black Peas	....	3. 25

The Whippoorwill is the basis for variety values, the price of most other varieties ranging upward. In general, Brabhams seem to command the highest price, followed closely by Irons, while mixed varieties invariably are sold at the heaviest discount. New Eras do not vary greatly from the basic price, sometimes being slightly higher or lower.

It should not be concluded that because a variety is higher in price it is necessarily more expensive for planting purposes. The New Era and Iron varieties, for example, are smaller than Whippoorwills and Clays and have a proportionately greater planting capacity per unit of weight. For this reason, other factors being equal, the smaller seeded varieties even at a higher price may be more economical for the farmer to buy for planting purposes. The estimated number of cowpeas per pound by varieties and the relative planting capacity of each are given in Table 10.

TABLE 10.—*Number of cowpeas per pound and comparative planting capacity by varieties.*

Variety.	Number.	Planting capacity compared with Whippoorwills.	Variety.	Number.	Planting capacity compared with Whippoorwills.
Brabham	5,188	172	Unknown	2,864	95
New Era	4,448	147	Red Ripper	2,427	80
Iron	3,840	127	Black	2,394	79
Groit	3,227	107	Blackeye (large)	2,260	75
Whippoorwill	3,015	100	Taylor	1,819	60
Clay	2,890	96			

DISCOUNT FOR MIXED VARIETIES.

One of the chief causes of low average farm prices for cowpeas is the production and marketing of "mixed" varieties. It was shown in Table 2 that 25 per cent of the cowpeas entering commercial channels is mixed. The average price received by growers for mixed varieties is 10 to 25 per cent less than that received for straight varieties. On the basis of a market value of $4 per 100 pounds for straight varieties, the direct loss to growers on this portion of their crop is 40 cents to $1 per 100 pounds.

This unfavorable condition is one of the easiest to correct. Much of the mixed stock that appears on the market is occasioned by indifference to the varietal purity of seed stocks. Only pure seed of known varieties should be planted if it is intended to market the seed crop. The varieties of cowpeas are described in detail in a bulletin [8] issued by the United States Department of Agriculture.

Cowpeas also become mixed in harvesting and thrashing. This can be prevented by the exercise of ordinary care in keeping each variety separate during the entire process of harvesting and thrashing, whether by hand or machinery.

The exact meaning of the term "mixed" as applied to cowpeas is sometimes misunderstood by growers. Instances are known where growers have sold to local shippers a lot of cowpeas as "mixed" when in reality it consisted of one or more bags each of several varieties. For example, the lot may consist of 900 pounds total, made up of 200 pounds Whippoorwills, 300 pounds Brabhams, 300 pounds Clays, and 100 pounds Irons, each variety in separate bags. To sell such a lot of cowpeas on the basis of the discount price of "mixed" is shortsighted to say the least. It not only means a loss to the grower but affords an opportunity for local shippers to reap an unearned profit by keeping each variety separate, accumulating larger quantities of each, and selling on the basis of straight variety values. Only when two or more varieties of cowpeas are contained in the same bag and their identity lost should they be classed as mixed and sold at the prevailing discount.

Just what percentage of other varieties should be permitted in a given variety before it is classed as "mixed" has not been determined. This is a question of grades and standards. The discount in price, however, usually is not graduated according to the percentage of other varieties present. Ten per cent of other varieties present, for

[8] Morse, W. J.: Cowpeas; Culture and Varieties. U. S. Department of Agriculture, Farmers' Bulletin No. 1148, 1920.

example, may force cowpeas into the "mixed" class and reduce the price to the same low level of a 50-50 mixture.

This is not as it should be because Whipporwills containing only 10 per cent of other varieties, for example, are greater in value, on the basis of the present relation of varieties, than Whippoorwills containing a larger percentage of other varieties and should sell for less than Brabhams containing only 10 per cent of other varieties.

Inasmuch as cowpeas are sold on the basis of sample and description and not by grade, it should not be difficult to arrive at a fair price for mixtures. Growers offering cowpeas for sale, however, should be accurate and brief in their descriptions. A study of a few samples should assist growers in this matter. By taking a sample containing 100 cowpeas and counting the number of each variety present the result will indicate automatically the percentage of each variety. If, for example, a 100-seed sample is composed of 75 Whippoorwills, 10 Clays, 8 Red Rippers, and 7 Blacks the proper description is "Whippoorwills containing 25 per cent of other varieties."

The discount for mixed cowpeas should be figured on the basis of the prevailing price of straight or unmixed cowpeas of the variety predominating in the mixture. For example, if the prevailing discount for mixed cowpeas is 10 per cent and straight Brabhams are selling at $4 per 100 pounds, the price of mixed Brabhams should be 10 per cent less or $3.60. However, with straight Brabhams selling at $4, straight New Eras, for example, would be quoted at about $3.50, on the basis of the present relation of variety values, and the price of mixed New Eras would be reduced 10 per cent or to $3.15. In other words, there should be the same range between the price of mixtures containing 50 per cent or more of any one variety as between the price of straight varieties.

COMPETITIVE CROPS.

The price of cowpeas is affected more or less by the supply of soy beans and velvet beans for seed and the publicity given these crops by various agencies. Substitution among these three crops is not general, however, and the demand for cowpeas remains more nearly constant while the price of any one or two which may be in short supply is curbed by the relatively lower price of the crop of which the seed supply is greatest.

Based on the comparative seeding capacity of each of these crops per unit, the price of cowpeas is almost invariably higher than that of either soy beans or velvet beans, but the fact that cowpeas succeed under a greater diversity of conditions makes them more desirable in many sections.

Although the acreage and consequent demand for soy beans and velvet beans for seed have increased greatly during recent years, they have had little effect on the demand for cowpeas. On the other hand, the total production of cowpeas for seed shows little change and if the supply is to keep pace with the demands of diversified farming the seed crop must of necessity be conserved, prepared properly, and the surplus distributed equitably to farmers in consuming sections. This is the growers' opportunity and the profit received for this minor cash crop will be in direct proportion to the quality of the cowpeas produced, the preparation given them for market, and the judicious selection of the time of marketing and the agency through which they are sold.